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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,084	01/14/2002	A. L. Pepper Aasgaard	ASA 01-2-1	6254

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EXAMINER

SAETHER, FLEMMING

ART UNIT PAPER NUMBER

3679

DATE MAILED: 11/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/050,084

Applicant(s)

AASGAARD, A. L. PEPPER

Examiner

Flemming Saether

Art Unit

3679

-- Th MAILING DATE of this communication app ars on the cov r sh et with the correspond nc addr ss --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 13-15, 17-19, 36 and 38-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Aasgaard (US 5,915,901). In Fig 9 of applicant's prior patent there is shown a rivet assembly wherein the mandrel includes a self tapping a drilling auger (94). The auger includes a longitudinal groove (95) which inherently would have a leading and trailing edge, a tip for penetrating the workpiece and, a means formed as a helix for advancing the auger into a material. Aasgaard further discloses the threaded bolt head, the shoulder portion and the particulars of the mandrel as claimed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 15, 16, 20, 21, 23, 26, 28 and 31-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aasgaard '901 as applied above, and further in view of Tisserant. The prior patent discloses an auger formed on the mandrel of a rivet as described above but, does not disclose some specifics of the mandrel including

the polishing edge. Tisserant discloses an auger comprising a longitudinal groove with a leading cutting edge (20) and a trailing cutting edge there further being provided a polishing edge (the groove at the portion labeled 12). There may be provided a self piercing point (at 30). At the time the invention was made, it would have been obvious for one of ordinary skill in the art to replace the auger of Aasgaard '901 with one as described in Tisserant in order to provide a more efficient drilling into sheet metal as disclosed in Tisserant.

Claims 3, 5, 7-9, 11, 22, 24, 27, 29 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aasgaard '901 alone or as modified by Tisserant as applied to claims 1, 2, 20, 26 and 36 above, and further in view of Korb. Korb discloses an auger having a cutting edge (22) angled with respect to the longitudinal axis and extending further from the axis than the trailing edge (see Fig. 4). At the time the invention was made, it would have been obvious for one of ordinary skill in the art to form the groove and cutting edges of Aasgaard '901 or Aasgaard '901 as modified by Tisserant as discloses in Korb in order to provide for a more efficient drilling facilitated by the improved configuration of the cutting edge.

Claims 6, 12, 25, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aasgaard '901 alone or as modified by Tisserant and/or Korb as applied to claims 1, 7, 20, or 29 above, and further in view of Peterson. Peterson teaches to provide a cutting edge (30) and polishing edge (at 25) with a curve. At the

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time the invention was made, it would have been obvious for one of ordinary skill in the art to form the cutting/polishing edge of Aasgaard '901 alone or as modified by Tisserant and/or Korb with curve as disclosed in Peterson in order to provide for better cutting and material removal.


Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Flemming Saether whose telephone number is 703-308-0182. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on 703-308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2168.


Flemming Saether
Primary Examiner
Art Unit 3679

November 8, 2002